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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,978	06/26/2003	Sung-Man Jung	5019-1-008	6452
33942	7590	04/14/2005	EXAMINER	
CHA & REITER, LLC			MATZEK, MATTHEW D	
210 ROUTE 4 EAST STE 103			ART UNIT	
PARAMUS, NJ 07652			PAPER NUMBER	

1771

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/606,978

Applicant(s)

JUNG, SUNG-MAN

Examiner

Matthew D. Matzek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-3 and 6, in the reply filed on 3/28/2005 is acknowledged.

***Specification***

2. The abstract of the disclosure is objected to because of its length. The maximum length permissible for the Abstract is 150 words. Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. The instant claims recite "a functional high-strength adhesive sheet", "a functional polyethylene layer" and "a functional high-strength steel plate" and it is the position of the Examiner that a high-strength adhesive sheet or steel plate and a layer of polyethylene are capable of many functions, but it is unclear as what Applicant intends in their instant recitation. Amendment is required.
5. Claim 3 is also rejected for its recitation of adding "additional components". Applicant must clearly point out and distinctly claim the subject matter which applicant regards as the invention. Amendment is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Colburn (US Patent 3,721,597).

7. Colburn discloses a laminate of two metal laminae produced by disposing a structured film comprising an inner layer of thermoplastic material between two layers of an adhesive thermoplastic material (Abstract). Laminates produced by this method may be used in packaging and construction fields (Abstract). The metal laminae of the applied invention may be terne-plated steel (col. 6, lines 36-45). The adhesive layers in the applied patent may be selected from copolymers containing between about 60 and about 99.5 weight percent combined  $\alpha$ -olefin (col. 5, lines 11-25). Polyethylene is an olefin. Example IV teaches the coating of both sides of a nonwoven fabric by the extrusion of adhesive prior to its attachment to the metal laminae (col. 8, lines 18-28).

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 6 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Colburn. The invention of Colburn has been previously disclosed.

9. Claim 6 is rejected as the presence of process limitations on product claims, in which the product does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. *In re Stephens*, 145 USPQ 656.

10. Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to Applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292.

***Claim Rejections - 35 USC § 103***

11. Claim 2 is rejected under 35 U.S.C. 103(a) as obvious over Colburn. The invention of Colburn has been previously disclosed, but is silent as to the basis weight of the nonwoven fabric to be used in the applied invention.

12. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a nonwoven fabric of the instantly claimed basis weights, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

13. Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as obvious over Harpell et al. (US Patent 4,403,012) in view of Bruinink et al. (US Patent 5,035,952).

14. Harpell et al. disclose a ballistic –resistant article (Abstract). Examples 1-6 teach the application of a high-density polyethylene (HDPE) film placed on both sides of a steel plate and

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then layers of parallel multistrand yarn of high tenacity polyethylene yarn were wound around the plate. The article was then covered with another layer of HDPE (col. 5, lines 30-42).

15. The invention of Harpell is silent as to the basis weight of the nonwoven fabric to be used in the applied invention, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a nonwoven fabric of the instantly claimed basis weights, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

16. Claim 6 is rejected as the presence of process limitations on product claims, in which the product does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. *In re Stephens*, 145 USPQ 656.

17. Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to Applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292.

18. The invention of Harpell et al. is silent to the use of a graft copolymer of polyethylene.

19. Bruinink et al. disclose a ballistic structure comprising a solid metal layer and a second layer consisting of a composite fiber material and a binding agent that is applied between the first and second layers (Abstract). The binding agent contains a modified polyolefin (Abstract). The solid metal layer may be steel (col. 2, lines 19-23). The binding agent is more preferably a graft copolymer of polyethylene (col. 2, lines 33-39). The yarns of the applied invention may be nonwoven (col. 1, lines 65-66).

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It would have been obvious to one of ordinary skill in the art to have used the graft copolymer of Bruinink et al. to adhere the yarn of Harpell et al. to the steel plate. The skilled artisan would have been motivated by the superior results provided by the modified polyolefin (col. 3, lines 45-48). Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mdm

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*Elizabeth M. Cole*  
ELIZABETH M. COLE  
PATENT EXAMINER